

PERFORMANCE IMPROVEMENT OF THE CHIX FLIGHT CRYOSTAT, T.S. Luchik, U. E. Israelsson, D. Petrac, and S. Elliott, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91109- The JPL flight cryostat last flew on the Space Shuttle in October, 1992 in support of the Lambda Point Experiment. A new experiment, the Confined Helium Experiment (CHeX), now in development will reuse this cryostat. An improvement to the cryostat performance was necessitated by the CHeX experiment having a longer mission requirement and stricter requirements imposed by NASA with respect to a launch-scrub turnaround scenario. The parasitic heat load reduction necessary to relieve both constraints was about 1 ~~So~~0 or 1 liter/day. The techniques implemented to achieve this goal, and subsequent results are presented along with a thermal model used during the analysis of the cryostat.

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